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Claim Amendments:

Cancel claim 15, rewrite claims 14 and 16-18, and add the new claims 27-28, as follows:

1-13. (canceled).

14. (currently amended) A blood purification device, comprising:

a duct for the flow of whole blood;

a stage for filtering plasma from the whole blood arranged along said duct;

a plasma purification circuit ~~connectable~~ connected with said stage for filtering plasma; ~~and~~

a stage for whole blood dialysis by means of plasma purified in said plasma purification circuit, said stage for whole blood dialysis comprising a selectively permeable interface for separating at least part of the whole blood stream of said duct from a countercurrent stream of plasma purified in said plasma purification circuit;

a filter, which is constituted by an internal compartment crossed by parallel permeable capillaries that form said selectively permeable interface, the space inside said capillaries delimiting at least part of said duct for the flow of said whole blood, said internal compartment being divided, in the direction of the extension of said capillaries, into two separate compartments, respectively a first compartment that forms said stage for filtering plasma from whole blood and a second compartment that forms said stage for dialyzing the whole blood by means of purified plasma in countercurrent with respect to the whole blood, said first and second compartments being mutually connected at the region where the countercurrent flow of said purified plasma ends, said first and second compartments being further functionally arranged in connection respectively to an input and an output of said plasma purification circuit; and

a venous line connected to said output of said plasma purification circuit and connected to an output of said duct for the flow of whole blood such that a first fraction of purified plasma from said plasma purification circuit flows to said output of said duct for the flow of whole blood to return to a patient and a second fraction of said

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purified plasma from said plasma purification circuit flows to said second compartment that forms said stage for dialyzing the whole blood by means of purified plasma in countercurrent with respect to the whole blood.

15. (cancelled).

16. (currently amended) The blood purification device of claim 14, wherein said ~~plasma purification circuit is filtered by said stage for filtering plasma from whole blood, which is functionally connected to said stage for dialyzing the whole blood by means of purified plasma, said plasma purification circuit being functionally connected to said duct downstream of both said stage for filtering plasma from whole blood and said stage for dialyzing whole blood by means of purified plasma~~ filter has a first end and a second end and an extension that extends between said first and second ends, said first end of said filter having a blood input and said second end of said filter having a blood output, said duct for the flow of whole blood extending from said blood input to said blood output through said parallel permeable capillaries in both said first and second compartments, said input of said plasma purification circuit being connected to said first compartment of said filter in proximity to said second end of said filter, said output of said plasma purification circuit being connected to said second compartment of said filter in proximity to said second end of said filter, said internal compartment being divided into said two separate first and second compartments by means of a separation wall arranged in said filter, and said first and second compartments being mutually connected by means of a hole provided in said separation wall in proximity to said first end of said filter.

17. (currently amended) The blood purification device of claim 16, wherein said plasma purification circuit comprises a device for removing water-soluble and dialyzable toxic molecules, ~~which is generally used to purify blood but is used to purify plasma that arrives from said stage for filtering plasma from whole blood.~~

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18. (currently amended) The blood purification device of claim 17, wherein said device for removing water-soluble and dialyzable toxic molecules is composed of modules for performing diffusive processes ~~such as~~ selected from high-flux dialysis, convective-diffusive processes, purely convective processes, membrane-based adsorptive processes.

19. (Previously Presented) The blood purification device of claim 18, wherein said device for removing water-soluble and dialyzable toxic molecules comprises a dialyzer that is functionally connected to a dialysate tank, a used dialysate tank, and an infusate tank.

20. (Previously Presented) The blood purification device of claim 16, wherein said plasma purification circuit comprises an adsorptive and/or perfusive purification module, used to purify plasma that arrives from said device for removing water-soluble or dialyzable toxic molecules.

21. (Previously Presented) The blood purification device of claim 20, wherein said adsorptive and/or perfusive purification module comprises one or more adsorption columns and/or one or more perfusion columns on carbon.

22-26. (Canceled).

27. (New) The blood purification device according to claim 14, further comprising a pump on said plasma purification circuit for pumping plasma therethrough.

28. (New) The blood purification device according to claim 27, further comprising a pump on said whole blood flow duct for pumping blood therethrough in a direction from said blood input end toward said blood output end.